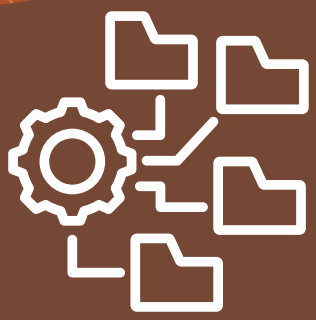
Adyapan School

Computer Numerical Control



Duration - 2 months

Industry Certification

Skill India Certified

250+ Partner Companies

Adyapan School

Master CNC
Master modern manufacturing

From design to production - become industry-ready.

This immersive 8-week CNC program takes you beyond concepts into real manufacturing execution. Learn CNC programming, machine architecture, CAM integration, and robotic toolpath planning through guided projects and simulations. With a strong focus on practical workflows and industry applications, you'll graduate with the ability to design, program, and optimize manufacturing processes confidently.

8	30+	20,000+
MODULES	PROGRAM OFFERINGS	STUDENTS

250+ PARTNERED COMPANIES

adyapanschool.com

Adyapan School

ABOUT ADYAPAN SCHOOLS

Where education meets real-world impact

Not just a course — a platform to launch your career.

Adyapan Schools was built with a single conviction: learning works best when it happens in the real world. We partner with top companies, mentors, and industry platforms to ensure every student graduates with a portfolio of work that speaks louder than a certificate.

Our programs combine rigorous coursework with live client projects, giving you the skills and proof-of-work that employers actually want.

MISSION

To equip ambitious learners with practitioner-level digital marketing skills through mentor-led, project-based education that bridges the gap between learning and earning.

VISION

To be India's most trusted launchpad for the next generation of marketing leaders — defined not by degrees but by the real work.

Adyapan School

Everything you need to grow fast

PROGRAM HIGHLIGHTS

Live Industry Projects

Work on campaigns for real brands alongside your coursework. Build portfolio projects that prove your expertise to employers.

1-on-1 Mentorship

Dedicated mentors from Google, Microsoft, Mastercard and more. Get personalized guidance and industry connections.

AI-Powered Marketing

Learn cutting-edge AI tools alongside evergreen fundamentals. Stay ahead of the curve in a rapidly evolving landscape.

Dual Certification

Earn both a Course Completion and Internship Certificate — accredited by Skill India Digital Hub and NSDC.

Internship Guarantee

Graduate with an internship completion certificate from a live brand project. Concrete, resume-ready proof of work.

Industry Network

Join a network of alumni at Amazon, Google, Adobe, Microsoft. Access exclusive hiring events and referral opportunities.

Adyapan School

CURRICULUM

8 weeks. 8 modules. Infinite impact.

WEEK 1

Introduction to CNC & Digital Manufacturing

- Discussion of Curriculum
- Evolution: Conventional → CNC → Smart Manufacturing
- Role of CNC in Digital Manufacturing & Design (DM&D)
- Overview of subtractive vs additive manufacturing
- Introduction to CAD/CAM integration
- CNC applications across industries

WEEK 2

Fundamentals of Computer-Aided Manufacturing (CAM)

- What is CAM and why it matters
- Process planning: traditional vs computer-aided
- Steps in CAM workflow (design → planning → manufacturing)
- Introduction to process planning for:
- CNC machining
- 3D printing (basic comparison)
- Simple case based process plan creation

WEEK 3

CNC Machine Elements & Architecture

- Components of CNC machines- Controller, drives, motors, and feedback systems
- Types of CNC machines- Milling, turning (focus on milling for simplicity)
- Axes and coordinate systems (X, Y, Z basics)
- Working principle of CNC machines
- Virtual demo walkthrough (video/simulation-based)

Adyapan School

CURRICULUM

8 weeks. 8 modules. Infinite impact.

WEEK 4

Basics of Industrial Robotics in Manufacturing

- Role of robots in manufacturing automation
- Types of industrial robots
- Basic robot architecture
- Applications: material handling, machining, additive processes
- CNC vs robotic automation (high-level comparison)

WEEK 5

Part Programming Fundamentals (NC Programming)

- What is NC (Numerical Control) programming
- Structure of a part program
- Introduction to G-codes and M-codes
- Coordinate systems & tool positioning
- Manual part programming from a simple drawing
- Writing basic CNC programs (2D components)

WEEK 6

Toolpath Planning for CNC Machines

- What is a toolpath and why it matters
- Types of toolpaths (profile, pocketing – basic only)
- Introduction to CAM software workflow (simulation-based)
- Tool selection basics
- Collision detection & error identification (simulation)
- Visualizing machining before execution

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CURRICULUM

8 weeks. 8 modules. Infinite impact.

WEEK 7

Toolpath Planning for Robotic Cells (Basic Level)

- Concept of robotic toolpath planning
- Understanding TCP (Tool Center Point) – basic concept
- Coordinate frames (user frame vs machine frame)
- Applications in:
  - Robotic machining
  - Robotic 3D printing
- Using NC files with robots (conceptual understanding only)

WEEK 8

Integration, Simulation & Industry Applications

- End-to-end workflow:
  - Design → CAM → CNC execution (digital flow)
- Introduction to digital thread in CNC manufacturing
- Simulation-based project:
  - Create part program + toolpath + verify
- Basics of manufacturing data & quality improvement
- Industry trends:
  - Smart factories and Automation + AI integration

Adyapan School

WHO THIS IS FOR

This course is perfect for

- Students & Career Switchers
- CNC Machine Operators
- Beginners in CNC & CAM
- Smart Factory & Industry 4.0 Learners
- Aspiring CNC Performers
- Shop Floor Technicians

CERTIFICATIONS

ALUMNI NETWORK

Our alumni work at world-class companies

Amazon | Adobe | Google | Autodesk | Microsoft | Deloitte

Your career switch is one click away.

Ready to begin? Apply at adyapanschool.com or email us at support@adyapan.com

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